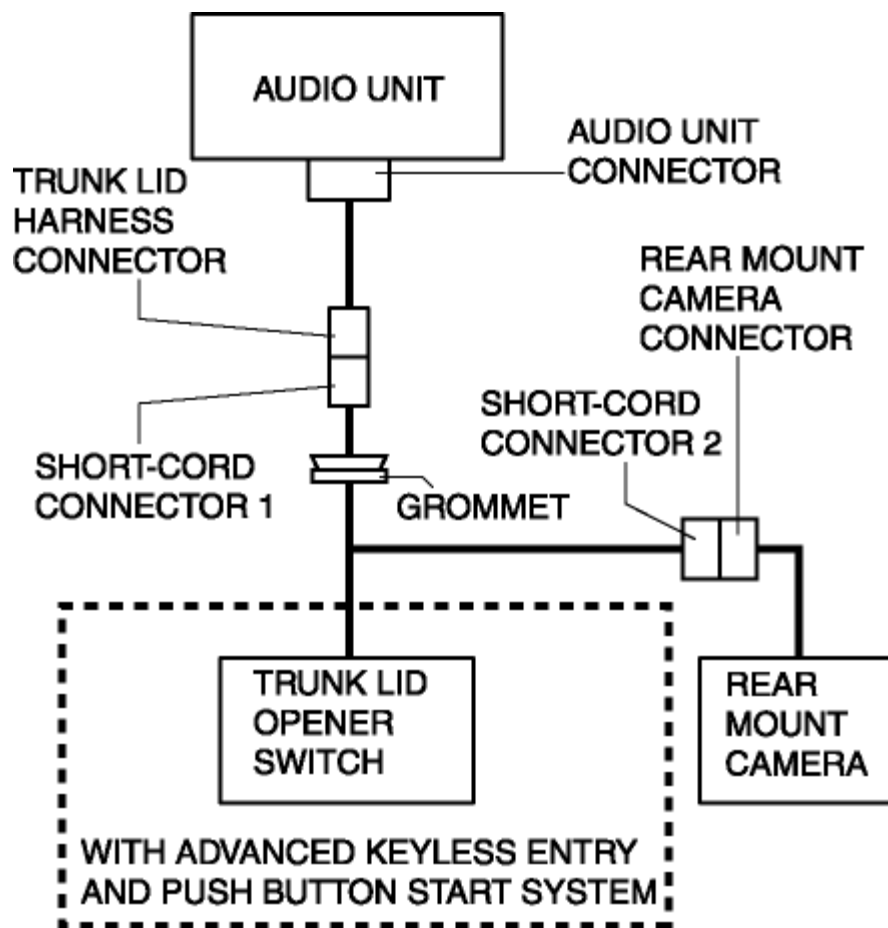


2012 - Mazda6 - Body and Accessories

NO.11 DISPLAY DOES NOT CHANGE TO THE REAR MOUNT CAMERA IMAGE [ENTIRE AUDIO SYSTEM]

11	Display does not change to the rear mount camera image
Possible DTC	Audio unit (with display)
POSSIBLE CAUSE	• Rear mount camera malfunction • Poor connection of the rear mount camera connector, terminal damage • Audio unit malfunction • CAN system malfunction • TR switch (ATX)/Back-up light switch (MTX) malfunction • Open or short circuit in wiring harness between TR switch (ATX)/Back-up light switch (MTX) and BCM • Poor connection of the short-cord connector, terminal damage • Open or short circuit in wiring harness in short-cord • Poor connection of the audio unit connector, terminal damage • Open or short circuit in wiring harness between audio unit and the short-cord connector 1



Diagnostic procedure

STEP	INSPECTION	ACTION
1	Is the lens of the rear mount camera dirty or view is obstructed?	Yes Clean the lens of the rear mount camera or remove the obstruction.
		No Go to the next step.
2	Does the lens of the rear mount camera have a crack and damage?	Yes Replace the rear mount camera. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION .)
		No Go to the next step.
3	Retrieve the DTC related to the audio system using the BCM, INSTRUMENT CLUSTER and audio unit. (See DTC INSPECTION [BCM].) (See DTC INSPECTION [INSTRUMENT CLUSTER].)	Yes Go to the applicable troubleshooting procedure. (See DTC TABLE [BCM] .) (See DTC TABLE [INSTRUMENT CLUSTER] .) (See DTC TABLE [AUDIO] .)

	(See DTC INSPECTION [AUDIO].) Is there any DTC retrieved?	No	Go to the next step.
4	- Monitor the following PIDs for the BCM using the M-MDS: - R_GEAR_SW. (See PID/ DATA MONITOR TABLE [BCM].) - Does the value displayed on the M-MDS correspond to the selector lever (ATX)/shift lever (MTX) condition?	Yes	Go to the next step.
		No	Inspect and repair the wiring harness between the TR switch (ATX)/Back-up light switch (MTX) and BCM.
5	- Switch the ignition to off. - Remove the short-cord. - Inspect the connection of the short-cord connector 1 (8-pin) and short-cord connector 2 (6-pin). - Disconnect the short-cord connector 1 (8-pin) and short-cord connector 2 (6-pin). - Inspect both the short-cord connector 1 and connector 2 terminal for poor connection (such as damaged/pulled-out pins, corrosion). - Are all the pins normal?	Yes	Go to the next step.
		No	If poor connection of the short-cord connector: - Securely connect the short-cord connector. If the short-cord connector is wrong (Without advanced keyless entry and push button start system): - Repair or replace the short-cord. If the short-cord connector is wrong (With advanced keyless entry and push button start system): - Repair or replace the short-cord for the trunk lid opener switch. (See TRUNK LID OPENER SWITCH REMOVAL/ INSTALLATION.)
6	- Switch the ignition to off. - Remove the audio unit. - Inspect the connection of the audio unit connector (12-pin). - Disconnect the audio unit connector (12-pin). - Inspect both the audio unit connector	Yes	Go to the next step.
		No	If poor connection of audio unit connector: Securely connect the audio unit connector. If the audio unit connector is wrong:

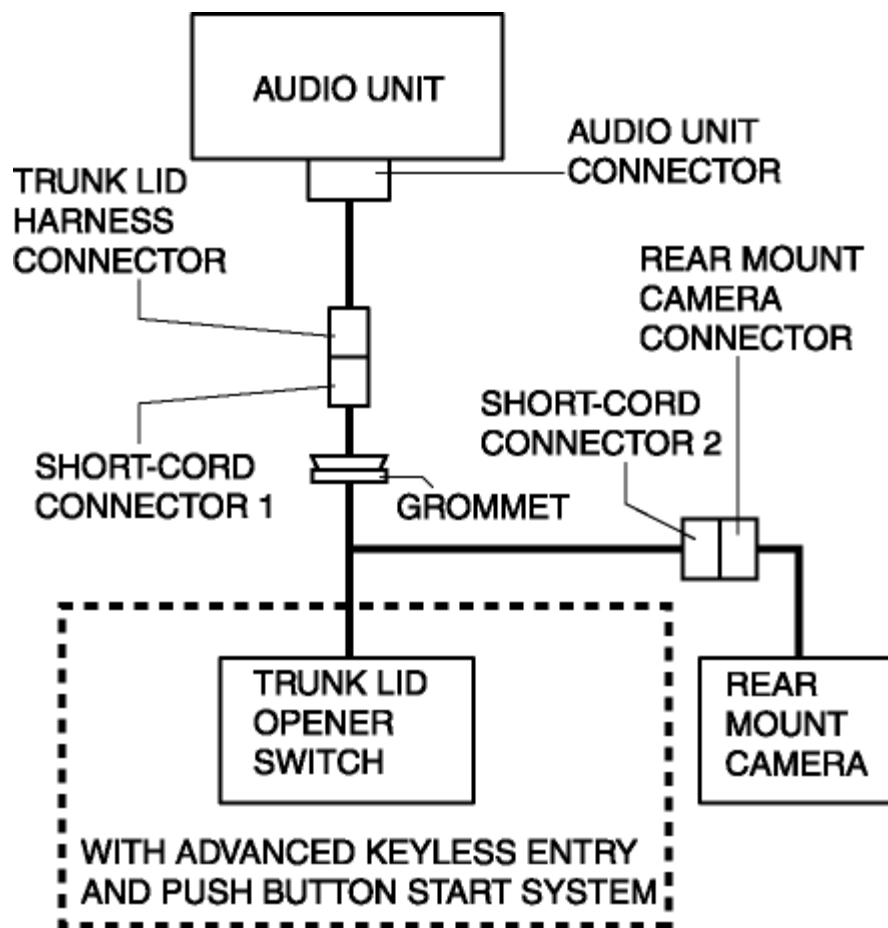
	terminal for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?		• Replace the audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
7	• Inspect the following wiring harnesses between the audio unit and trunk lid harness connector. ▪ Terminal 4E (12-pin, POWER)—terminal A (8-pin, POWER) ▪ Terminal 4G/4L (12-pin, P-GND)—terminal H (8-pin, P-GND) ▪ Terminal 4F (12-pin, V-GND)—terminal G (8-pin, V-GND) ▪ Terminal 4D (12-pin, COMPOSITE)—terminal B (8 pin, COMPOSITE) • Is there open or short circuit?	Yes	Repair or replace the wiring harnesses between audio unit and the short-cord connector 1.
		No	Go to the next step.
8	• Switch the ignition to off. • Remove the rear mount camera. • Inspect the connection of the rear mount camera connector (6-pin). • Inspect both the rear mount camera and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?	Yes	Go to the next step.
		No	If poor connection of rear mount camera connector: • Securely connect the rear mount camera connector. If the rear mount camera connector is wrong: • Replace the rear mount camera. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION.)
9	• Verify that there is no open or short	Yes	Without advanced

	circuit between the short-cord connector 2 and short-cord connector 1. ▪ Terminal A (6-pin, POWER)—terminal A (8-pin, POWER) ▪ Terminal F (6-pin, P-GND)—terminal H (8-pin, P-GND) ▪ Terminal C (6-pin, V-GND)—terminal G (8-pin, V-GND) ▪ Terminal D (6-pin, COMPOSITE)—terminal B (8-pin, COMPOSITE) • Is there open or short circuit?		keyless entry and push button start system • Repair or replace the short-cord. With advanced keyless entry and push button start system • Repair or replace the short-cord for the trunk lid opener switch. (See TRUNK LID OPENER SWITCH REMOVAL/ INSTALLATION.)
		No	Repair the rear mount camera, then go to the next step. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION.)
10	Has the malfunction symptom been eliminated?	Yes	Troubleshooting completed (rear mount camera malfunction).
		No	• Replace the audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.)

2012 - Mazda6 - Body and Accessories

NO.11 DISPLAY DOES NOT CHANGE TO THE REAR MOUNT CAMERA IMAGE [ENTIRE AUDIO SYSTEM]

11	Display does not change to the rear mount camera image
Possible DTC	Audio unit (with display)
POSSIBLE CAUSE	• Rear mount camera malfunction • Poor connection of the rear mount camera connector, terminal damage • Audio unit malfunction • CAN system malfunction • TR switch (ATX)/Back-up light switch (MTX) malfunction • Open or short circuit in wiring harness between TR switch (ATX)/Back-up light switch (MTX) and BCM • Poor connection of the short-cord connector, terminal damage • Open or short circuit in wiring harness in short-cord • Poor connection of the audio unit connector, terminal damage • Open or short circuit in wiring harness between audio unit and the short-cord connector 1



Diagnostic procedure

STEP	INSPECTION	ACTION
1	Is the lens of the rear mount camera dirty or view is obstructed?	Yes Clean the lens of the rear mount camera or remove the obstruction.
		No Go to the next step.
2	Does the lens of the rear mount camera have a crack and damage?	Yes Replace the rear mount camera. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION .)
		No Go to the next step.
3	Retrieve the DTC related to the audio system using the BCM, INSTRUMENT CLUSTER and audio unit. (See DTC INSPECTION [BCM].) (See DTC INSPECTION [INSTRUMENT CLUSTER].)	Yes Go to the applicable troubleshooting procedure. (See DTC TABLE [BCM] .) (See DTC TABLE [INSTRUMENT CLUSTER] .) (See DTC TABLE [AUDIO] .)

	(See DTC INSPECTION [AUDIO].) Is there any DTC retrieved?	No	Go to the next step.
4	- Monitor the following PIDs for the BCM using the M-MDS: - R_GEAR_SW. (See PID/ DATA MONITOR TABLE [BCM].) - Does the value displayed on the M-MDS correspond to the selector lever (ATX)/shift lever (MTX) condition?	Yes	Go to the next step.
		No	Inspect and repair the wiring harness between the TR switch (ATX)/Back-up light switch (MTX) and BCM.
5	- Switch the ignition to off. - Remove the short-cord. - Inspect the connection of the short-cord connector 1 (8-pin) and short-cord connector 2 (6-pin). - Disconnect the short-cord connector 1 (8-pin) and short-cord connector 2 (6-pin). - Inspect both the short-cord connector 1 and connector 2 terminal for poor connection (such as damaged/pulled-out pins, corrosion). - Are all the pins normal?	Yes	Go to the next step.
		No	If poor connection of the short-cord connector: - Securely connect the short-cord connector. If the short-cord connector is wrong (Without advanced keyless entry and push button start system): - Repair or replace the short-cord. If the short-cord connector is wrong (With advanced keyless entry and push button start system): - Repair or replace the short-cord for the trunk lid opener switch. (See TRUNK LID OPENER SWITCH REMOVAL/ INSTALLATION.)
6	- Switch the ignition to off. - Remove the audio unit. - Inspect the connection of the audio unit connector (12-pin). - Disconnect the audio unit connector (12-pin). - Inspect both the audio unit connector	Yes	Go to the next step.
		No	If poor connection of audio unit connector: Securely connect the audio unit connector. If the audio unit connector is wrong:

	terminal for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?		• Replace the audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
7	• Inspect the following wiring harnesses between the audio unit and trunk lid harness connector. ▪ Terminal 4E (12-pin, POWER)—terminal A (8-pin, POWER) ▪ Terminal 4G/4L (12-pin, P-GND)—terminal H (8-pin, P-GND) ▪ Terminal 4F (12-pin, V-GND)—terminal G (8-pin, V-GND) ▪ Terminal 4D (12-pin, COMPOSITE)—terminal B (8 pin, COMPOSITE) • Is there open or short circuit?	Yes	Repair or replace the wiring harnesses between audio unit and the short-cord connector 1.
		No	Go to the next step.
8	• Switch the ignition to off. • Remove the rear mount camera. • Inspect the connection of the rear mount camera connector (6-pin). • Inspect both the rear mount camera and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?	Yes	Go to the next step.
		No	If poor connection of rear mount camera connector: • Securely connect the rear mount camera connector. If the rear mount camera connector is wrong: • Replace the rear mount camera. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION.)
9	• Verify that there is no open or short	Yes	Without advanced

	circuit between the short-cord connector 2 and short-cord connector 1. - Terminal A (6-pin, POWER)—terminal A (8-pin, POWER) - Terminal F (6-pin, P-GND)—terminal H (8-pin, P-GND) - Terminal C (6-pin, V-GND)—terminal G (8-pin, V-GND) - Terminal D (6-pin, COMPOSITE)—terminal B (8-pin, COMPOSITE) • Is there open or short circuit?		keyless entry and push button start system - Repair or replace the short-cord. With advanced keyless entry and push button start system - Repair or replace the short-cord for the trunk lid opener switch. (See TRUNK LID OPENER SWITCH REMOVAL/ INSTALLATION.)
		No	Repair the rear mount camera, then go to the next step. (See REAR MOUNT CAMERA REMOVAL/ INSTALLATION.)
10	Has the malfunction symptom been eliminated?	Yes	Troubleshooting completed (rear mount camera malfunction).
		No	Replace the audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.)